



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
Taoyuan, 324, Taiwan, R.O.C.

TEL: 886-3-4690038 FAX: 886-3-4697532

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Product Specifications Approval Sheet

Product Description: SAW Resonator 434.420 MHz SMD 5X5 mm

TST Parts No.: TC434ED_A

Customer Parts No.: _____

| |
|-----------------------------|
| Customer signature required |
| Company: _____ |
| Division: _____ |
| Approved by : _____ |
| Date: _____ |

Checked by: _____ Hongpu Lin *Hongpu Lin*

Approval by: _____ Andy Yu *Andy Yu*

Date: _____ 2019/11/08

1. Customer signed back is required before TST can proceed with sample build and receive orders.
2. Orders received without customer signed back will be regarded as agreement on the specifications.
3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the changes.



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SAW Resonator 434.42 MHz

MODEL NO.: TC434ED_A

REV. NO.:3.0

A. FEATURES:

- 1-Port Resonator.

RoHS Compliant
Lead free
Lead-free soldering

B. MAXIMUM RATING:

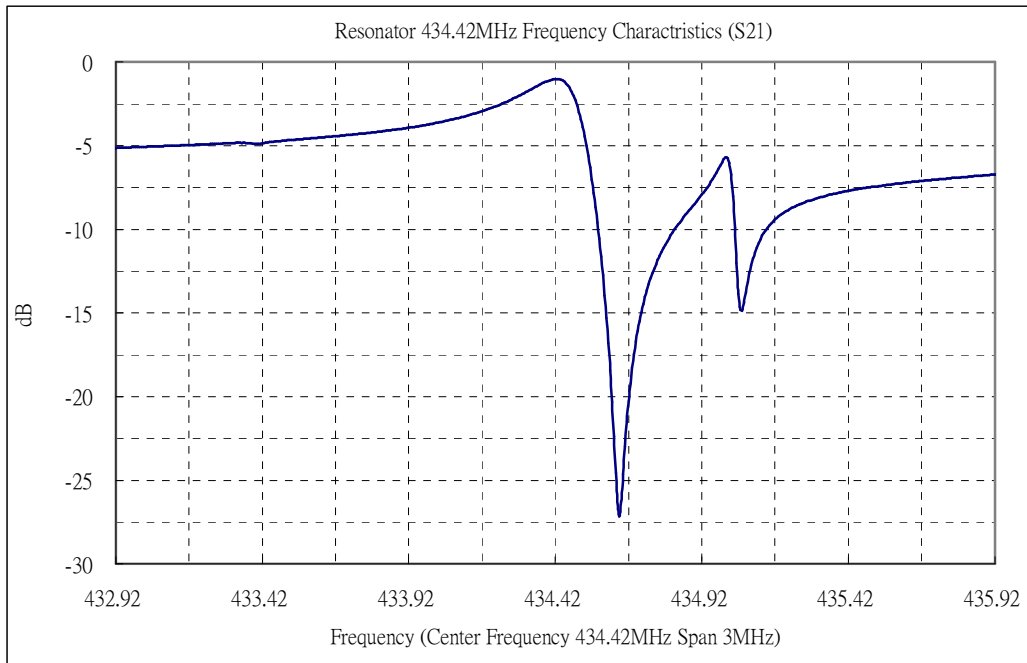
1. Input Power Level: 0 dBm
2. DC voltage: 12 V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -40°C to +85°C
5. Moisture Sensitivity Level: Level 1(MSL1)

Electrostatic Sensitive Device

C. ELECTRICAL CHARACTERISTICS:

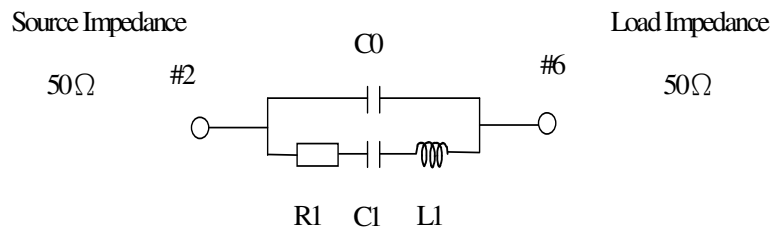
| Characteristic | Units | Minimum | Typical | Maximum |
|-------------------------|---------|--------------|---------|---------|
| Center frequency Fr | MHz | 434.345 | 434.42 | 434.495 |
| Insertion Loss IL | dB | - | 1.0 | 2.0 |
| Unloaded Quality factor | | - | 14500 | - |
| Equivalent Elements | | | | |
| Motional capacitance C1 | fF | - | 1.8 | - |
| Motional inductance L1 | μH | - | 73 | - |
| Motional resistance R1 | Ohm | - | 13 | 23 |
| Parallel capacitance Co | pF | - | 3.0 | - |
| Temp.coeff. | ppm/c*2 | - | 0.032 | - |
| Turnover To | deg.C | 10 | 25 | 40 |
| Package size | | SMD5X5X1.7mm | | |

D. FREQUENCY CHARACTERISTICS:

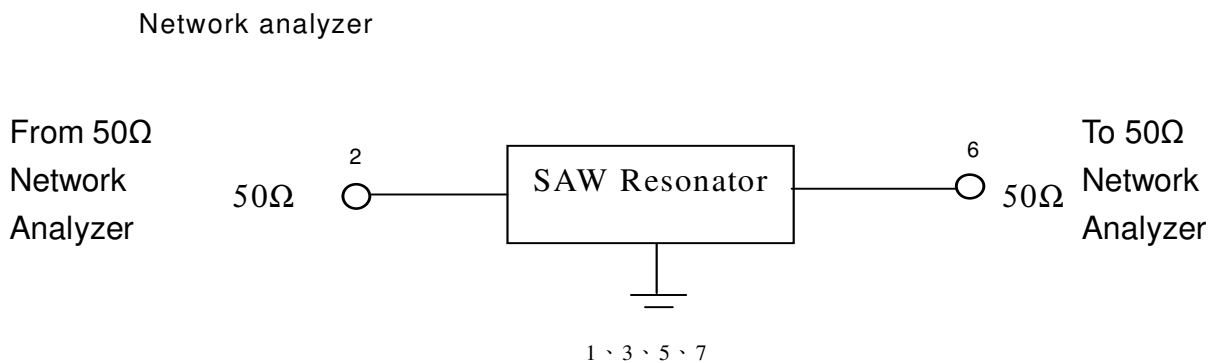


E. EQUIVALENT CIRCUIT:

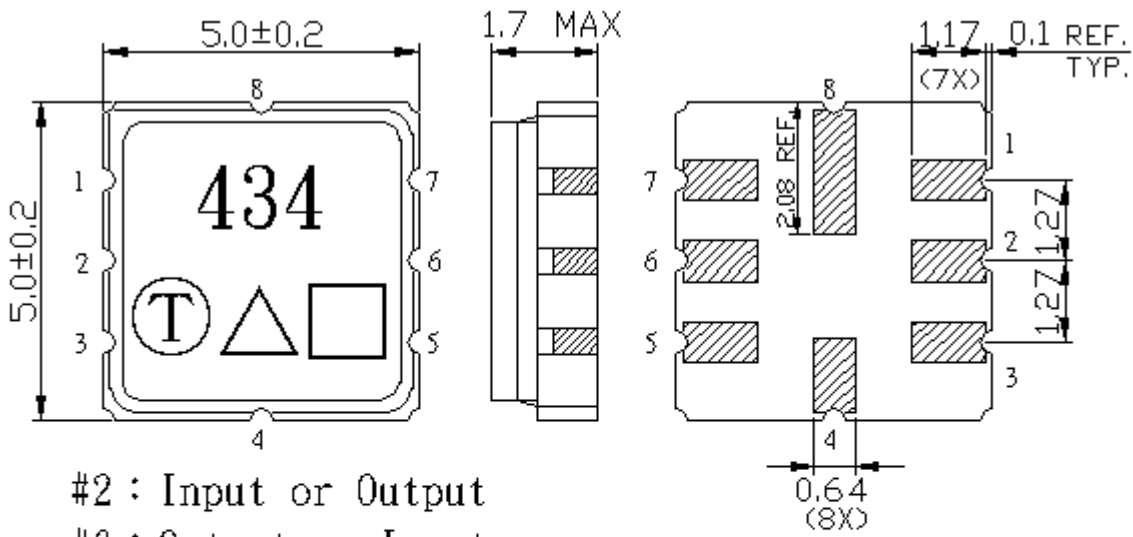
One-Port Resonator:



F. TEST CIRCUIT:



G. OUTLINE DRAWING:



- #2 : Input or Output
- #6 : Output or Input
- #4、8 : Case Ground
- #1、3、5、7 : Ground
- △ : Year code
- : Date code
- Unit : mm

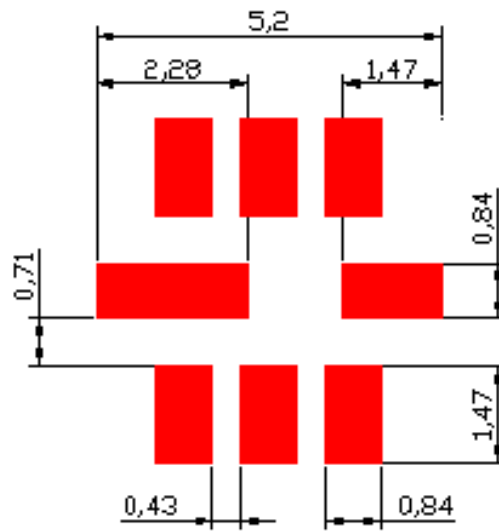
Product / Year Code- 4year cycle

| | | | | |
|--------------|--------------|--------------|--------------|--------------|
| Year | 2017 2021 | 2018 2022 | 2019 2023 | 2020 2024 |
| Product Code | E | e | <u>E</u> | <u>e</u> |

Week Code Table

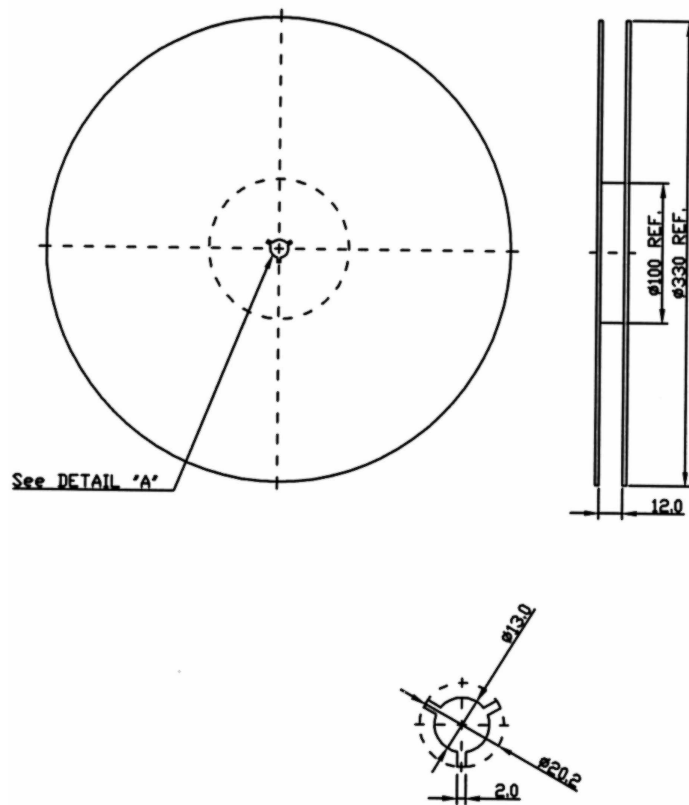
| | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| WK01 | WK02 | WK03 | WK04 | WK05 | WK06 | WK07 | WK08 | WK09 | WK10 | WK11 | WK12 | WK13 |
| A | B | C | D | E | F | G | H | I | J | K | L | M |
| WK14 | WK15 | WK16 | WK17 | WK18 | WK19 | WK20 | WK21 | WK22 | WK23 | WK24 | WK25 | WK26 |
| N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| WK27 | WK28 | WK29 | WK30 | WK31 | WK32 | WK33 | WK34 | WK35 | WK36 | WK37 | WK38 | WK39 |
| a | b | c | d | e | f | g | h | i | j | k | l | m |
| WK40 | WK41 | WK42 | WK43 | WK44 | WK45 | WK46 | WK47 | WK48 | WK49 | WK50 | WK51 | WK52 |
| n | o | p | q | r | s | t | u | v | w | x | y | z |

H. PCB FOOTPRINT:

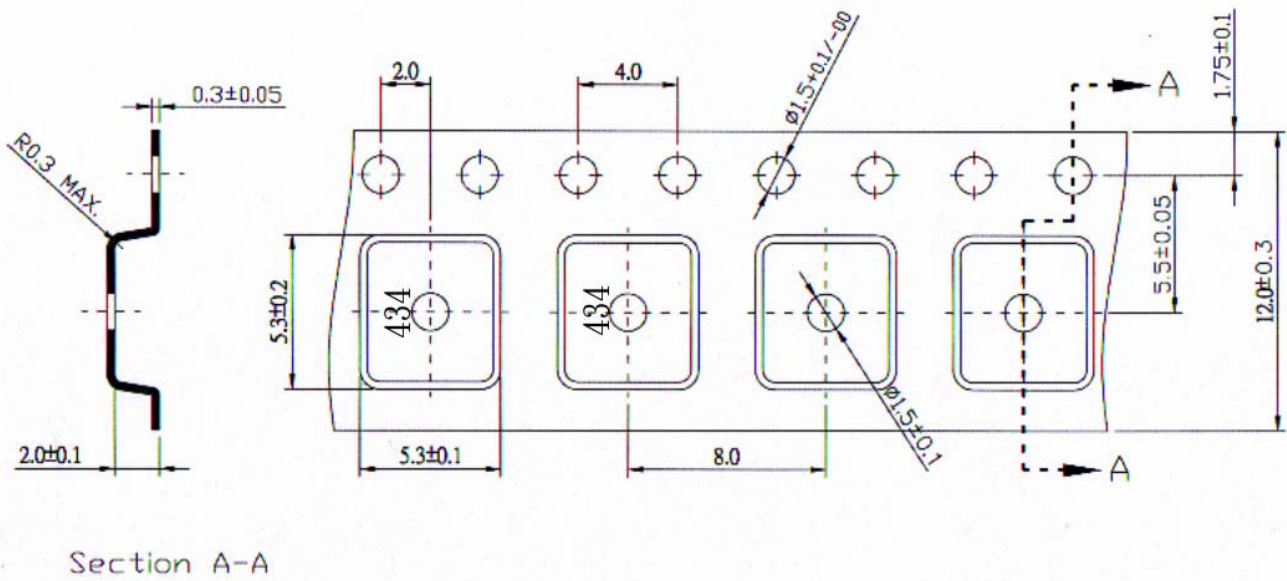


I. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION



J. RECOMMENDED REFLOW PROFILE:

1. Preheating shall be fixed at $150 \sim 180^{\circ}\text{C}$ for $60 \sim 90$ seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for $50 \sim 80$ seconds and at $260^{\circ}\text{C} +0/-5^{\circ}\text{C}$ peak ($20 \sim 40$ sec).
4. Time: 2 times.

